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GROSS THEORETICAL WATERPOWER, DEVELOPED AND UNDEVELOPED

SNAKE RIVER BASIN, WYOMING, IDAHO, NEVADA, OREGON, WASHINGTON

Open-file report

Not reviewed for conformance with the editorial standards of the Geological Survey

Portland, Oregon, July 1963

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By L. L. Young, J. L. Colbert, D. W. Neal, and G. M. Flaherty

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GROSS THEORETICAL WATERPOWER, DEVELOPED AND UNDEVELOPED

SNAKE RIVER BASIN, WYOMING, IDAHO, NEVADA, OREGON, WASHINGTON

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Introduction

In 1962 the Geological Survey made a detailed inventory of developed and undeveloped waterpower sites for the Western States including Alaska. The report shows the Snake River basin as having 46 developed waterpower sites with a total installed capacity of 1,398 MW (1,000 kw). This is the most complete estimate of the waterpower resources of the basin made by the Survey. It compares with an earlier one made in 1908, as follows:

Discharge rate	Potential (1000 kw) 1908	1962		Change
Q 95	--	4,172)	+	2,502
Minimum discharge	1,670	--)		
Q 50	--	8,511		--
Q mean	3,800	15,346	+	11,546

Note: Q95 = discharge available 95 percent of the time; it approximates the minimum discharge used in 1908. The 1908 amounts are the total developed and undeveloped power reported by M. O. Leighten in WSP 234, published in 1909.

The increases are attributed to better information on streamflow and physical features in the form of more and longer-period records of discharge and topographic maps of better quality which more adequately cover the basin. The present conception of the characteristics necessary to make a powersite appear reasonably practicable also contributes importantly to the increases. The 1962 estimate is based upon gross head and 100 percent efficiency as prescribed by the World Power Conference standards for making estimates of gross theoretical waterpower. The 1908 estimates were for an efficiency of 80 percent but have been converted to 100 percent for comparative purposes. Significant criteria from the World Power Conference standards as defined in 1962 are:

Powersites

> Waterpower sites, or "powersites", are definite sections of a stream which are developed or are capable of being developed for the production of waterpower.

Potential Power Resources

> The potential power resources of any country, section or river basin shall be the aggregate of the gross theoretical power at all the powersites, developed and undeveloped, in such country, section, or river basin.

In order to be included in these statistics an undeveloped site shall have such gradient, flow, and physical conditions that its development for the production of power may reasonably be assumed to be eventually practicable.

Gross Theoretical Power of Powersites

The "gross theoretical power" of a powersite shall be the full potential output at 100 percent efficiency expressed in kilowatts, and shall be determined by taking the product of the flow per second by the gross head.

Gross theoretical power shall be taken as:

$$0.085\ Qh$$

when the head "h" is in feet and the flow "Q" is in cubic feet per second.

Rates of Flow

The gross theoretical power of powersites shall be computed for three different rates of flow, defined as follows: Q95, Q50, and arithmetical mean flow.

When "modified" flow differs from "natural" flow, the former, either as measured or as estimated, shall be used.

Heads at Powersites

The "gross head" shall be the difference in elevation at the time of such flow between the water surface at the beginning and at the end of the powersite, without reduction for losses.

The "net head" shall be the gross head reduced by average hydraulic losses and by reservoir drawdown. (World Power Conference 1962).

The tabulation includes all developed sites, and all undeveloped powersites having a potential of 1,000 kw at 100 percent efficiency for discharge available 50 percent or more of the time. Developed reservoirs are listed whether or not waterpower is produced or planned. Gross theoretical potential is computed for three rates of flow, Q95, Q50, and arithmetical mean. Installed capacities and reported average annual kwhr production are shown for developed sites. The estimated kwhr production at undeveloped sites is for mean flow and 8760 hours at 80 percent efficiency.

AND UNDEVELOPED
SNAKE RIVER BASIN DEVELOPED /WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at Q 95 MW	 Q 50 MW	 Mean MW	Installed capacity MW	Average annual generation MWH
			No. Plants						
Snake River Basin Totals									
Developed			46	10,627.10				1,398.07	7,512,470
Potential at developed sites					982.56	1,806.00	2,607.27		18,259,050
Potential at undeveloped sites					3,488.75	6,704.88	12,739.21		89,235,980
Potential at developed and undeveloped sites					4,471.81	8,510.88	15,346.48		107,495,030
WYOMING									
Developed			4.5	1,563.2				60.08	277,500
Potential at developed sites					21.64	47.01	80.91		566,400
Potential at undeveloped sites					142.29	258.94	629.62		4,405,400
Potential at developed and undeveloped sites					163.93	305.95	710.53		4,971,800

AND UNDEVELOPED

SNAKE RIVER BASIN DEVELOPED/ WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at Q 95 MW	 Q 50 MW	 Mean MW	Installed capacity MW	Average annual generation MWH
			No. Plants						
IDAHO									
Developed			32.5	6,577.55				775.20	4,522,700
Potential at developed sites					519.90	921,85	1,262.12		8,841,500
Potential at undeveloped sites					2,396.40	4,681.21	9,125.03		63,938,650
Potential at developed and undeveloped sites					2,916.30	5,603.06	10,387.15		72,780,150
NEVADA									
Potential at developed sites				32.7	.23	1.0	2.11		14,800
Potential at undeveloped sites					.58	2.46	5.53		38,850
Potential at developed and undeveloped sites					.81	3.46	7.64		53,650

AND UNDEVELOPED

SNAKE RIVER BASIN DEVELOPED/ WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at Q 95 MW	 Q 50 MW	 Mean MW	Installed capacity MW	Average annual generation MWH
			No. Plants						
OREGON									
Developed			8	2,036.65				292.79	1,906,350
Potential at developed sites					152.19	262.14	364.23		2,550,750
Potential at undeveloped sites					522.81	979.03	1,652.71		11,568,260
Potential at developed and undeveloped sites					675.00	1,241.17	2,016.94		14,119,010
WASHINGTON									
Developed			1	417.00				270.00	805,920
Potential at developed sites					288.60	574.00	897.90		6,285,600
Potential at undeveloped sites					426.67	783.24	1,326.32		9,284,820
Potential at developed and undeveloped sites					715.27	1,357.24	2,224.22		15,570,420

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
WYOMING									
12-G Snake River, headwaters to Henrys Fork									
Snake R., Jackson Lake	43 51	110 35		847	-	-	-	0	0
Swift Cr., (Salt) Afton	42 44	110 53	193		2.18	3.25	6.13	.8	2,700
Lower Afton	42 00	110 00	68		-	-	-	.18	700
Strawberry Cr.,Strawberry Cr.	42 54	110 54	580		.94	1.48	2.71	1.5	8,000
Salt River, Freedom	-	-						.6	
IDAHO AND WYOMING									
Snake R., Palisades	43 20	111 12	245	1,402	32.7	78.1	134.2	114.	532,200
Developed				2,249				117.08	543,600
Potential at developed sites					35.82	82.83	143.04		1,001,400
SNAKE RIVER BASIN, WYOMING									
Developed (4 1/2 plants, includes 1/2 of Palisades)				1,548				60.08	277,500
Potential at developed sites (SNAKE R., HEADWATERS TO HENRYS FORK)					19.47	43.78	75.94		531,700
IDAHO									
Developed (1/2 Palisades)				701				57.	266,100
Potential at developed sites (SNAKE R., HEADWATERS TO HENRYS FORK)					16.35	39.05	67.1		469,700

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
IDAHO AND WYOMING									
12-G Snake River, Henrys Fork									
Henrys Fork, Henrys Lake	44 30	111 22	250	79	-	-	-	0	0
Island Park	44 24	111 24	72	127	.05	2.78	3.36	0	0
Buffalo R., Ponds Lodge	44 25	111 24	170	-	2.09	2.46	2.67	2	10
Henrys Fork, Ashton	44 04	111 30	150	Pondage	6.4	13.5	17.3	5.8	0
Falls R., Grassy Lk.(WYOMING)	44 08	110 30	730	15.2	2.17	3.23	4.97	0	0
Henrys Fork, St. Anthony	44 58	111 41	40	0	1.44	1.73	3.91	.5	3,600
Teton R., Felt	43 55	111 16	90	Pondage	-	-	-	1.87	2,800
Idaho and Wyoming				221.20	12.15	27.70	32.21	10.17	6,400
IDAHO									
Developed (4 plants)				206				10.17	6,400
Potential at developed sites (Henrys Fork)					9.98	20.47	27.24		197,200
WYOMING									
Potential at developed (Grassy Lk.)				15.2	2.17	3.23	4.97	-	34,700

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
IDAHO									
12-G Snake River, Henrys Fork to Oregon line									
Snake R., Idaho Falls (#2)	43 33	112 03	21	Pondage	2.95	6.43	9.04	2.4	16,000
Idaho City (#1)	43 29	112 02	42		5.9	12.8	18.1	2.0	14,000
Idaho Falls (#4)	43 28	112 03	32		4.5	9.8	13.8	3	20,000
Blackfoot R., Blackfoot Marsh	42 59	111 45	150	413	1.19	1.92	2.30	0	0
Portneuf R., Portneuf Res.	42 53	111 57	100	24	-	-	-	0	0
Birch,Marsh Cr., Malad City	42 21	112 15	510		-	-	-	.2	1,500
Snake R., American Falls	42 48	112 52	60	1,700	3.67	28.6	34.3	27.5	148,000
Minidoka (Lake Walcott)	42 20	113 29	50	222.	3.33	27.4	32.7	13.4	94,000
Goose Cr., Oakley	42 12	113 55	300	74.4	.26	1.14	1.27	0	0
Snake R., Milner Lake	42 31	114 00	85		1.8	8.16	13.5	0	0
Wilson Lake (offstream)	42 46	114 09		18.5	-	-	-	0	0
Dry Cr., Murtaugh Lake	42 28	114 09	161	12	-	-	-	0	0
Snake R., Twin Falls	42 36	114 21	147	.8	5.36	23.9	39.4	13.5	58,900
Shoshone Falls	42 36	114 24	226	.8	8.65	38.0	63.0	10.88	92,000
Clear Lakes, Clear Lakes	42 40	114 47	80		-	-	3.16	2.5	18,000
Salmon Falls Cr, Sal.Falls Cr.	42 13	114 44	225	182.7	.10	2.5	5.0	0	0
Cedar Cr., Cedar Cr.	42 13	114 53	210	26	-	-	-	0	0
Springs, Thousand Springs	42 45	114 51	182		-	-	9.0	8.	40,000
Snake R, Upper Salmon "B"	42 46	114 54	100	1.2	46.7	63.7	73.8	16.5	145,000
Upper Salmon "A"	42 46	114 55	50		23.4	31.8	36.9	18	165,000
Lower Salmon Falls	42 50	114 54	55		25.6	35.0	40.7	60	260,000
Big Lost, Sink, Mackay Res.	43 57	113 40	100	44.5	.94	1.40	2.13	0	0
Big Wood, Malad, Magic Res.	43 15	114 21	125	191.5	.1	1.06	4.24	0	0

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
Little Wood, Little Wood	43 25	114 00	200		.60	1.19	2.38	0	
Malad R., Upper Malad	42 52	114 53	129		8.17	9.26	13.1	7.2	64,000
Lower Malad	42 52	114 54	163		12.4	13.8	20.7	13.5	105,000
Snake R., Bliss	42 53	115 03	70		36.4	48.6	54.6	75.	369,200
Long Tom Cr., Long Tom Res.	43 17	115 35		5.	-	-	-	0	0
Rattlesnake Cr., Mountain Home	43 09	115 40	45	5.6	-	-	-	0	0
Snake R., C. J. Strike	42 57	115 58	88	35.	53.1	71.8	81.5	82.8	433,000
Swan Falls	43 14	116 22	74	2.3	44.6	60.4	68.6	10.3	96,000
IDAHO									
Developed (18 plants)				2,959.30				366.68	2,139,600
Potential at developed sites (Henrys Fork to Oregon line)					289.72	498.66	643.22		4,506,200

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at Q 95 MW	 Q 50 MW	 Mean MW	Installed capacity MW	Average annual generation MWH
OREGON, IDAHO, NEVADA									
12-H Owyhee River									
(NEV) E.Fk. Owyhee R., Wildhorse	41 41	115 51	400	32.7	.23	1.0	2.11	0	0
(ORE) Jordan Cr., Antelope Res.	42 53	117 25	275	55.	.07	1.11	6.46	0	0
(ORE) Owyhee R., Owyhee Res.	43 38	117 14	460	1,121.8	4.10	10.4	45.6	0	0
Oregon, Idaho, Nevada				1,209.5	4.40	12.51	54.17		
NEVADA									
Potential at developed sites (OWYHEE RIVER)				32.7	.23	1.0	2.11		14,800
OREGON									
Potential at developed sites (OWYHEE RIVER)				1,176.8	4.17	11.51	52.06		364,000

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
IDAHO									
12-H Boise River									
S.F. Boise R., Anderson Ranch	43 21	115 28	330	423	6.30	7.17	17.5	27	136,900
Little Camas Cr., Little Camas	43 21	115 25	802		1.02	1.22	3.06	0	0
Boise R., Arrowrock	43 35	115 55	156	286.6	11.1	20.0	33.1	0	0
Lucky Peak	43 31	116 03	260	307	22.1	40.0	65.6	0	0
Boise Diversion	43 32	116 05	24		2.04	3.67	6.06	1.5	7,000
Barber	43 35	116 07	23		.98	1.57	3.53	1.	5,000
Deer Flat (Lake Lowell)	43 35	116 44	31	177.2	.53	1.32	2.63	0	0
Developed (3 plants)				1,193.8				29.5	148,900
Potential at developed sites (BOISE RIVER)					44.07	74.95	131.48		920,300
OREGON									
12-H Malheur River									
Malheur R., Warm Springs Res.	43 41	118 05	406	192.4	.17	2.41	5.86	0	0
N.Fk. Malheur, Buelah Res.	43 47	118 08	340	60	.11	1.59	3.90	0	0
Bully Cr., Bully Creek	44 01	117 24	100	32	-	-	-	0	0
Malheur R., Warm Sprgs (Vale 1)	43 59	117 14	31		-	-	-	.3	1,500
Vale No. 2	43 59	117 11	7	Reg.&Res	-	-	-	.07	350
Developed (2 plants)				284.4				.37	1,850
Potential at developed sites (MALHEUR RIVER)					.28	4.00	9.76		68,000

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
IDAHO									
12-H Payette River									
Deadwood R., Deadwood Lodge	44 26	115 35	720	Pondage	.61	1.0	1.53	.15	700
Deadwood Res.	44 18	115 39	235	161.9	-	-	-	0	0
N.F. Payette R., Payette Lk.	44 52	116 08	157	35	.03	1.40	4.72	0	0
Cascade	44 31	116 03	93	704.1	1.97	4.90	7.9	1.5	0
Payette R., Black Canyon	44 55	116 26	92	44.1	3.91	14.1	23.1	8	0
Developed (3 plants)				945.1				9.65	700
Potential at developed sites (PAYETTE RIVER)					6.52	21.40	37.25		258,700
12-H Weiser River									
Lost Cr., Lost Valley	44 55	116 29	1290	10	.22	1.6	4.2	0	0
Little Weiser R., Ben Ross Res.	40 31	116 27	26	7.8	-	-	-	0	0
Crane Cr., Crane Cr. Reservoir	44 18	118 44	840	60.	.14	1.36	5.1	0	0
Potential at developed sites (WEISER RIVER)				77.8	.36	2.96	9.3		63,700

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
OREGON									
12-H Burnt & Powder Rivers									
Burnt R., Unity	44 30	118 10	170	25.8	.03	1.04	1.42	0	0
Cracker Cr., Powder R., Sumpter #1	44 45	118 13	260		-	-	-	.12	500
Powder R., Goodrich Lake	44 46	117 51	744		-	-	-	.12	500
Rock Cr.(Powder) Rock Creek	44 54	118 03	936		-	-	-	.8	4,000
Powder R., Thief Valley	45 01	117 47	210	17.4	.23	1.34	3.75	0	0
Developed (3 plants)				43.2				1.04	5,000
Potential at developed sites (BURNT & POWDER RIVERS)					.26	2.38	5.17		36,150
IDAHO AND OREGON									
12-H Snake River, Brownlee to High Mtn. Sheep									
Snake River, Brownlee	44 50	116 54	272	984.5	201.14	332.9	404.6	360.4	2,674,000
Oxbow	44 57	116 48	122		90.7	150.4	183.4	220.	1,108,000
Developed (2 plants)				984.5				580.4	3,782,000
Potential at developed sites (BROWNLEE - HIGH MTN. SHEEP)					291.84	483.30	588.0		4,116,000

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	Powerhouse location Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at Q 95 MW	Gross theoretical power, with gross head, 100 percent efficiency and flows at Q 50 MW	Gross theoretical power, with gross head, 100 percent efficiency and flows at Mean MW	Installed capacity MW	Average annual generation MWH
IDAHO									
Developed (1/2 Brownlee & 1/2 Oxbow) = 1 plant				492.25				290.2	1,891,000
Potential at developed sites (BROWNLEE - HIGH MTN. SHEEP)					145.92	241.65	294.0		2,058,000
OREGON									
Developed (1/2 Brownlee & 1/2 Oxbow) = 1 plant				492.25				290.2	1,891,000
Potential at developed sites (BROWNLEE - HIGH MTN. SHEEP)					145.92	241.65	294.0		2,058,000

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
OREGON									
12-H Grande Ronde River, China Gardens-Grande Ronde to Clarkston									
Sheep Cr., Morgan Lake	45 18	118 06	1180		-	-	-	.38	500
E.F. Wallowa R., Wallowa Falls	45 16	117 13	1187		1.01	1.51	2.02	.8	8,000
Wallowa R., Joseph	45 20	117 14	263	40	.55	1.00	1.22	0	0
Developed (2 plants)				40				1.18	8,500
Potential at developed sites (CHINA GARDENS-GRANDE RONDE TO CLARKSTON)					1.56	2.51	3.24		24,600
				15					

DEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location: Latitude ° '	Powerhouse location: Longitude ° '	Gross Head (feet)	Storage, thousands of acre-feet	Gross theoretical power, with gross head, 100 percent efficiency and flows at: Q 95 MW	Q 50 MW	Mean MW	Installed capacity MW	Average annual generation MWH
IDAHO									
12-K Clearwater River									
S.F. Clearwater, Grangeville	45 54	116 00	60		.51	1.50	4.39	1	4,600
Lolo Cr., Grangeville(Lolo Cr)	46 22	116 09	34		.17	.52	1.44	1	7,000
Clearwater R., Lewiston	46 26	116 57	36	2.3	6.30	20.6	46.7	10	58,000
Developed (3 plants)				2.3				12	69,600
Potential at developed sites (CLEARWATER RIVER)					6.98	22.62	52.53		367,700
WASHINGTON									
12-L Snake River									
Snake R., Lower Monumental	46 35	118 25	93		139.	276.5	432.1	0	0
Ice Harbor	46 15	118 54	100	417	149.6	297.5	465.8	270	805,920
Developed (2 plants)				417				270	805,920
Potential at developed sites (SNAKE RIVER - WASHINGTON)					288.6	574.0	897.9		6,285,600
				16					

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
WYOMING							
12-G Snake River, headwaters to Henrys Fork							
Fox Cr., Barlow Peak	44 12	110 25	480	.82	1.43	3.88	27,200
Snake R., Basin Creek	44 10	110 29	250	.96	1.49	4.03	28,000
Red Creek	44 10	110 34	150	.70	1.09	2.94	20,600
Lewis R., Shoshone Lake	44 22	110 40	200	.68	1.1	2.9	20,300
Lewis Lake	44 17	110 39	700	3.27	5.35	9.8	68,600
Snake R., Glade Creek	44 07	110 40	200	2.8	4.8	12.6	88,000
Moran Canyon, Moran Bay	43 51	110 45	1200	1.02	2.04	5.10	35,700
Pacific Cr., Whetstone Creek	43 57	110 26	400	1.7	2.7	6.8	47,600
N. Buffalo Fk., Joy Creek	43 52	110 14	800	1.02	1.7	4.4	30,800
Buffalo Fk., Bear Cub Pass	43 52	110 14	1000	4.2	6.8	17.4	122,000
Blackrock	43 50	110 23	200	1.8	2.9	7.7	53,500
Snake R., Jackson Lk.	43 45	110 39	200	3.66	7.05	39.1	273,700
Spread Cr., Spread Creek	43 45	110 39	550	1.64	2.81	7.48	52,400
Cascade Cr., Jenny Lake	43 46	110 44	1220	1.04	1.55	4.15	29,000
Death, Open & Granite Crks, Phelps Lk	43 37	110 46	1135	.96	1.45	3.86	27,000
Gros Ventre R., Kinky Cr.	43 27	110 09	600	.77	1.3	3.1	21,000
Cottonwood-Upper Slide	43 33	110 17	400	2.7	4.6	10.5	74,000
Red Hills	43 38	110 29	350	3.72	5.95	14.0	98,000
Slide Lake	43 37	110 38	350	3.87	6.25	14.6	102,200
Flat Cr., Nowlin Cr.	43 31	110 41	600	.61	1.02	2.35	16,500
Snake R., Jackson Hole	43 24	110 45	600	20.4	35.7	153.	1,071,000

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
Hoback R., Kerr's Ranch	43 12	110 24	400	1.80	3.13	8.23	57,600
Granite Creek	43 17	110 32	300	3.3	5.7	15.0	105,000
Ramshorn	43 17	110 38	200	2.29	4.	6.38	45,000
Camp Davis	43 18	110 41	100	1.36	1.96	6.29	44,000
Snake R., Alpine	43 11	110 59	380	38.1	85.6	158.7	1,111,000
Greys R., Boco-Spring Co.	42 38	110 40	600	.77	1.28	3.06	21,400
Marten Cr.	42 44	110 41	650	1.93	3.32	7.18	50,300
Upper Meadows	42 52	110 42	250	1.59	2.66	5.53	38,700
Elbow	42 58	110 44	336	2.86	4.7	10.3	70,300
Porcupine Cr.	43 01	110 48	194	1.9	3.2	6.7	46,700
Fire Creek	43 08	110 54	305	4.40	7.4	15.5	109,000
Squaw Flat	43 09	111 00	345	5.13	8.79	18.2	127,400
Tributaries to Salt, Cottonwood Lks	42 41	110 56	1100	2.32	3.74	5.61	39,000
Crow Cr., (Salt) Upper Star Valley	42 40	111 02	250	.85	1.28	1.55	10,900
Salt R., Narrows	42 51	110 59	350	7.7	11.	13.4	94,000
*Tincup R., (Salt) Corral Cr.(IDAHO)	42 59	111 08	350	.7	1.04	1.34	9,000
Salt R., Amesville (WYOMING)	43 08	111 02	280	.95	1.4	1.7	12,000
SNAKE RIVER BASIN, WYOMING							
Potential at undeveloped sites				135.59	248.24	613.02	4,289,400
Potential at developed sites (from developed waterpower summary)				19.47	43.78	75.94	531,700
Potential at developed and undeveloped sites (HEADWATERS TO HENRYS FORK)				155.06	292.02	688.96	4,821,100
*Added with Idaho			18				

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
12-G Snake River, headwaters to Henrys Fork							
Bear Cr., North Fork	43 17	111 13	380	.8	1.1	1.4	10,000
Palisades Cr., Palisades Lakes	43 23	111 15	1250	2.7	3.2	4.2	29,400
Rainy Cr., Rainy Creek	43 27	111 18	630	.86	1.2	1.6	11,200
Snake R., Swan Valley	43 27	111 24	110	11.8	36.9	61.0	427,000
Pine Cr., Poison Cr.	43 32	111 18	400	.85	1.19	1.53	10,700
Lower Pine Cr.	43 30	111 22	300	.9	1.1	1.6	12,000
Wolf Canyon	43 29	111 22	240	.75	1.0	1.4	9,600
Snake R., Burns Cr.	43 36	111 29	139	15.4	48.1	79.5	556,000
Lower Rush Beds	43 36	111 39	90	10.1	31.5	52.5	365,000
Potential at undeveloped sites				180.45	374.57	819.09	5,729,300
Potential at developed sites (from developed waterpower summary)				35.82	82.83	143.04	1,001,400
Potential at developed and undeveloped sites (HEADWATERS TO HENRYS FORK)				216.27	457.40	962.13	6,730,700
IDAHO							
Potential at undeveloped sites				44.86	126.33	206.07	1,439,900
Potential at developed sites (1/2 of Palisades)				16.35	39.05	67.1	469,700
Potential at developed and undeveloped sites (SNAKE RIVER, HEADWATERS TO HENRYS FORK)				61.21	165.38	273.17	1,909,600

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO AND WYOMING							
12-G Snake River, Henrys Fork							
Henrys Fork, Lookout Butte	44 12	111 23	430	5.55	23.1	27.2	190,400
Falls	44 11	111 19	320	.5	22.4	26.9	188,000
Partridge Cr., Partridge Cr.	44 16	111 17	200	1.0	1.5	2.5	17,500
Warm R., Warm River	44 09	111 17	520	2.9	4.6	7.1	50,000
Robinson Cr. (Warm) Fish Cr.	44 07	111 17	320	.8	1.4	2.2	15,000
Henrys Fork, Warm Springs	44 22	111 20	230	12.7	27.2	28.2	197,000
Bechler R.,(Falls) Colonnade (WYO)	44 13	110 59	800	1.0	1.7	2.7	19,000
Bechler Meadows (WYO)	44 08	111 00	200	3.2	5.1	7.9	55,000
Falls R., Sheep Falls	44 04	111 07	400	5.8	9.4	14.6	102,000
(WYO) Boone Cr. (Falls) Lower Boone Cr.	44 05	111 02	640	1.9	3.0	4.6	32,000
Falls R., Squirrel	44 03	111 12	160	4.3	6.4	10.1	71,000
Anderson No. 1	44 02	111 25	340	9.1	13.7	21.5	150,000
Anderson No. 2	44 02	111 25	900	.99	1.53	2.29	16,000
Conant Cr. (Falls) Granite Cr.	44 00	111 08	600	1.27	2.04	3.06	21,000
Grainville	43 59	111 25	400	1.02	1.53	2.38	16,700
Falls River	43 59	111 37	400	2.72	4.25	6.64	46,000
Teton R., Victor	43 36	111 06	550	1.41	2.57	4.68	33,000
Teton Cr. (Teton) Teton Cr.	43 43	111 07	700	2.08	3.86	6.55	46,000
Teton R., Tetonia	43 51	111 15	150	2.10	3.50	4.98	35,000
Badger Cr. (Teton) Badger Cr.	43 54	111 13	500	1.16	1.70	3.18	22,000
N.Fk. Teton, Judkins	43 56	111 11	700	1.78	3.27	5.95	42,000

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation M.H
Teton R., Forks	43 56	111 20	575	11.2	18.8	26.8	188,000
Canyon Cr.,(Teton) Canyon Creek	43 53	111 26	675	.29	2.00	2.87	20,000
Teton R., Fremont	43 55	111 32	295	7.52	12.4	17.8	125,000
Moody Cr.,(Teton) Moody	43 50	111 39	400	.68	1.19	1.70	12,000
IDAHO							
Potential at undeveloped sites				65.84	144.54	205.05	1,435,600
Potential at developed sites (from developed waterpower summary)				9.98	20.47	27.24	197,200
Potential at developed and undeveloped sites (Henrys Fork)				75.82	165.01	232.29	1,632,800
WYOMING							
Potential at undeveloped sites (Henrys Fork)				6.70	10.70	16.60	116,000
Potential at developed sites (from developed waterpower summary)				2.17	3.23	4.97	34,700
Potential at developed and undeveloped sites (Henrys Fork)				8.87	13.93	21.57	150,700
WYOMING							
Potential at undeveloped sites (Headwaters to Henrys Fork)				142.29	258.94	629.62	4,405,400
Potential at developed sites (from developed waterpower summary)				21.64	47.01	80.91	566,400
Total Snake River Basin, Wyoming				163.93	305.95	710.53	4,971,800

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
12-G Snake River, Henrys Fork to Oregon line							
Willow Cr., Tex Creek	43 27	111 43	325	.97	1.79	6.35	44,000
Ririe	43 32	111 44	230	.68	1.47	4.90	34,000
Snake R., Bennett Bridge	43 25	112 07	30	4.26	9.32	13.1	91,500
Woodville	43 23	112 09	15	2.13	4.65	6.55	45,800
Monroe	43 20	112 10	27	3.84	8.4	11.8	82,600
Firth	43 19	112 11	10	1.42	3.12	4.36	30,000
Blackfoot R., Narrows	42 48	111 21	400	1.08	1.60	2.38	16,700
Graves Cr.	43 03	111 55	210	2.07	3.36	4.02	28,100
Rawlins Cr.	43 07	111 54	290	3.15	5.12	6.10	42,700
Spring Cr.	43 10	111 59	300	2.12	5.53	6.63	46,400
Blackfoot (Boise), Alridge	43 11	112 00	320	2.34	6.09	7.26	50,800
Blackfoot R., Wolverine Cr.	43 15	112 04	260	1.44	5.19	7.67	53,700
Snake R., Ferry Butte	43 07	112 34	25	1.70	6.50	8.33	58,300
Upper American Falls	43 02	112 36	35	2.38	9.18	11.5	80,500
Portneuf R., Lava Hot Springs	42 37	112 04	350	2.92	4.76	5.74	40,200
Blackrock	42 48	112 21	470	4.6	7.8	9.4	65,800
Pocatello	42 56	112 32	115	1.12	1.91	2.30	16,100
Snake R., Eagle Rock	42 42	112 57	110	6.40	52.4	62.6	438,200
Bickel	42 32	114 11	320	6.94	30.7	51.0	357,000
Kimberly	42 34	114 20	220	4.86	21.5	35.5	248,000
Rock Cr., West Fork	42 24	114 18	800	.54	1.36	2.52	17,600
Perrine	42 36	114 24	1052	.8	2.23	3.76	26,000

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
Snake R., Clear Lakes	42 40	114 43	198	10.25	45.5	75.0	525,000
Salmon Falls Cr., Roseworth	42 17	114 45	400	.17	4.42	8.84	62,000
Deep Creek	42 25	114 49	600	.25	7.80	15.3	107,100
Balanced Rock	42 34	114 55	420	2.61	2.96	3.71	26,000
Lucerne	42 40	114 53	430	2.74	3.11	3.84	27,000
Snake R., Lower Thousand Springs	42 44	114 51	70	29.75	41.6	47.6	333,000
Medicine Lodge Cr., Medicine Lodge	44 15	112 24	600	1.79	2.55	2.81	19,700
Birch Cr., Sink, Kaufman	44 08	112 54	600	3.47	4.08	4.23	29,600
Lava Ridge	43 56	112 46	1000	7.40	8.76	9.01	63,100
Little Lost, Sink, Howe	43 49	113 02	700	3.87	4.58	4.88	34,200
Big Lost, Sink, Wildhorse	43 54	114 09	500	.72	1.49	3.83	26,800
E.F. Big Lost, Castle Cr.	43 54	114 00	300	.77	1.61	4.13	28,900
Big Lost, Garden Cr.	43 59	114 04	300	1.71	3.57	9.13	64,000
Bartlett Point	44 02	113 57	200	1.31	2.72	6.99	49,000
Leslie	43 47	113 24	400	3.74	5.61	8.50	60,000
Antelope Cr., Upper Antelope	43 42	113 34	300	.38	1.27	1.91	13,000
Big Lost Project	43 47	113 24	400	.51	1.7	2.6	18,000
Big Lost, Sink, Arco	43 42	113 20	200	.42	1.53	2.55	18,000
Big Wood, Malad, Baker Cr.	43 47	114 33	400	1.46	2.21	4.76	33,300
Boulder Flats	43 47	114 28	240	1.02	1.63	3.46	24,000
Lake Cr.	43 44	114 24	360	2.54	3.83	8.11	56,800
Ketchum	43 39	114 29	300	2.42	3.70	7.80	54,600
Hailey	43 31	114 19	400	3.23	4.93	10.4	72,800
Bellevue	43 26	114 15	240	2.75	4.08	8.57	60,000
Ditto Hill	43 19	114 20	260	2.98	4.42	9.28	65,000
Camas, Big Wood, Malad, Blaine	43 20	114 31	220	.84	1.31	2.81	18,000

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
Little Wood, Malad, Upper L'l Wood	43 28	114 03	600	.76	1.53	3.06	21,000
Carey	43 17	113 57	250	.85	1.70	2.76	19,000
Malad, Tuttle	42 52	114 52	288	0	2.45	5.63	39,000
Snake R., High Bliss	42 55	114 59	66	34.2	45.7	51.4	360,000
Pasture	42 58	115 14	94	49.0	65.4	73.5	514,500
Indian Cove	42 57	115 37	35	19.3	25.9	29.1	204,000
Bruneau R., Jarbidge	42 20	115 39	300	.51	2.30	4.46	31,000
Sheep Cr.	42 30	115 35	300	.76	3.70	7.4	52,000
The Forks	42 35	115 38	220	.75	3.00	6.27	44,000
Hot Spring	42 48	115 43	605	2.31	9.26	19.0	133,000
Snake R., Guffey	43 18	116 33	117	37.8	112.2	129.2	905,000
Marsing	43 29	116 47	30	22.7	29.2	33.4	234,000
Blackjack (OREGON-IDAHO)	43 41	117 05	40	33.7	41.2	48.7	340,000
IDAHO							
Potential at undeveloped sites				382.65	687.89	933.35	6,529,400
Potential at developed sites (from developed waterpower summary)				289.72	498.66	643.22	4,506,200
Potential at developed and undeveloped sites (Henrys Fork to Oregon line)				672.37	1,186.55	1,576.57	11,035,600
OREGON							
Potential at undeveloped sites (1/2 Blackjack)				16.85	20.6	24.35	170,000

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
OREGON, IDAHO, NEVADA							
12-H Owyhee River							
(NEV) E.Fk. Owyhee R., Patsville	41 48	115 57	350	.31	1.28	2.98	21,000
(NEV) Owyhee R., Skull Cr.	41 55	115 04	225	.27	1.18	2.55	17,850
(IDA) E.Fk. Owyhee R., Duck Valley	42 05	116 17	225	.58	2.46	5.47	38,300
(IDA) E.Fk. Owyhee R., Duck Valley Div.	42 06	116 22	200	.52	2.19	4.86	34,000
(IDA) S.Fk. Owyhee R., Red Canyon	42 17	116 56	650	2.63	6.58	29.19	204,000
(ORE) Owyhee R., Three Forks	42 33	117 10	400	1.9	4.86	21.5	151,000
(ORE) S.Fk. Owyhee R., Soldier Cr.	42 44	117 21	412	2.0	5.0	22.2	155,000
(ORE) Jordan Cr., Arock	42 53	117 35	462	.22	3.18	19.1	134,000
(ORE) Owyhee R., Duncan Ferry	42 53	117 41	218	1.68	4.24	18.54	130,000
(ORE) Bogus Creek	43 07	117 42	320	2.59	6.61	29.2	204,000
(ORE) Mahogany	43 12	117 32	240	2.04	5.05	22.2	155,000
(ORE) Owyhee Lake (Upper)	43 19	117 27	90	.76	1.90	8.31	58,000
NEVADA							
Potential at undeveloped sites				.58	2.46	5.53	38,850
Potential at developed sites (from developed waterpower summary)				.23	1.0	2.11	14,800
Potential at developed and undeveloped sites (Owyhee River)				.81	3.46	7.64	53,650
IDAHO							
Potential at undeveloped sites (Owyhee River)				3.73	11.23	39.52	276,300
OREGON							
Potential at undeveloped sites				11.19	30.84	141.05	987,000
Potential at developed sites (from developed waterpower summary)				4.17	11.51	52.06	364,000
Potential at developed and undeveloped sites (Owyhee River)				15.36	42.35	193.11	1,351,000

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
12-H Boise River							
M.F. Boise R., Yuba Dam & Res.	43 48	115 12	500	1.06	1.91	4.46	31,200
Bald Mtn.	43 49	115 17	400	2.48	4.25	10.1	70,700
King	46 30	115 30	590	4.51	7.51	18.5	130,000
Alexander Flats	43 45	115 32	180	2.02	3.67	5.36	37,500
N.F. Boise R., Graham	43 55	115 17	250	.64	1.17	2.93	20,500
Trail Creek	43 55	115 24	600	2.04	3.82	9.28	65,000
Big Owl	43 23	115 30	415	2.12	3.88	9.39	65,700
Lost Creek	43 21	115 32	135	.81	1.44	3.51	24,600
Barber Flats	43 47	115 32	600	5.87	10.7	25.9	181,300
Boise R., Twin Springs	43 41	115 40	330	8.43	15.5	37.6	263,200
Slide Gulch	43 38	115 42	184	4.76	8.74	21.2	148,400
S.F. Boise R., Johnson Creek	43 39	114 54	900	2.60	4.59	9.79	68,500
Little Smokey	43 33	114 47	410	.87	1.57	3.13	21,900
Big Smokey	43 36	114 55	270	3.21	4.12	9.62	67,300
Boardman Cr.	43 39	115 03	400	4.59	6.80	16.0	112,000
Bascom Flat	43 36	115 08	200	2.81	4.08	9.86	69,000
Featherville	43 36	115 12	150	2.16	3.16	7.68	53,800
Casey Ranch	43 31	115 18	280	5.47	8.09	19.4	135,800
Casey to Anderson	43 29	115 20	102	1.99	2.95	7.07	49,500

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UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
S.F. Boise R., Indian Point	43 21	115 32	98	3.08	3.50	8.50	59,500
Raspberry	43 26	115 40	295	10.0	11.5	27.9	195,300
Long Gulch	43 33	115 44	259	9.57	10.9	26.4	184,800
Potential at undeveloped sites				81.09	123.85	293.58	2,055,500
Potential at developed sites (from developed waterpower summary)				44.07	74.95	131.48	920,300
Potential at developed and undeveloped sites (BOISE RIVER)				125.16	198.80	425.06	2,975,800
OREGON							
12-H Malheur River							
Malheur R., Black Butte	43 40	118 15	194	.08	1.24	3.05	21,000
S.Fk. Malheur, Riverside	43 27	118 11	500	.08	1.06	2.55	18,000
Reservoir #2	43 41	118 05	300	.08	1.15	2.68	19,000
Malheur R., Namar (Namorf)	43 46	117 44	425	.36	5.95	14.4	101,000
McLoughlin	43 57	117 28	225	.29	1.43	4.20	29,000
Potential at undeveloped sites				.89	10.83	26.88	188,000
Potential at developed sites (from developed waterpower summary)				.28	4.00	9.76	68,000
Potential at developed and undeveloped sites (MALHEUR RIVER)				1.17	14.83	36.64	256,000

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
12-H Payette River							
S.Fk. Payette R., Elk Lake	44 06	115 09	1200	3.06	4.59	7.14	50,000
Baron Creek	44 09	115 12	960	1.63	2.45	5.71	40,000
Grand Jean	44 09	115 12	260	1.44	2.10	4.42	31,000
Canyon Cr., S.Payette, Fogus	44 10	115 15	985	1.26	1.67	3.35	23,500
S.Fk. Payette R., Canyon Creek	44 10	115 15	225	1.62	2.48	5.16	36,100
Warm Springs Cr., Bull Trout Lk.	44 18	115 18	2665	2.26	3.40	7.93	55,500
S.Fk. Payette R., Warm Springs	44 07	115 24	480	3.47	5.30	11.02	77,100
Eight Mile Cr., Eight Mile	44 07	115 24	665	.56	1.13	2.54	17,800
S.F. Payette R., Archie Cr.	44 04	115 32	335	6.69	9.96	20.64	144,500
Steep Cr.	44 05	115 35	125	2.39	3.55	7.40	51,800
Clear Cr., Clear Creek	44 05	115 37	1125	3.15	3.82	7.65	53,600
Whitehawk Cr.(Deadwood) Whitehawk	44 17	115 38	500	1.06	1.36	2.98	20,900
Deadwood R., Scott Creek	44 13	115 38	360	1.01	2.51	5.51	38,600
Cloverleaf (Upper & Lower)	44 07	115 38	865	1.47	7.35	11.2	78,400
S.Fk. Payette R., Ox Bow Bend	44 04	115 40	215	6.21	11.5	26.1	182,700
Big Pine Creek	44 05	115 45	325	2.58	4.80	10.8	75,600
M.F. Payette R., Boiling Spring	44 18	115 51	450	1.34	2.37	5.06	35,400
Silver Cr.(Mid.Fk.) Peace Valley	44 18	115 51	850	1.08	1.81	3.83	26,800
M.Fk. Payette R., Rocky Canyon	44 16	115 52	415	2.54	4.48	9.60	67,200
Lightning-Anderson Crks.							
Gooseberry Creek	44 08	115 57	665	1.02	1.81	2.99	20,900
Payette R., Garden Valley	44 05	116 04	415	24.2	68.8	108.2	757,400
Garden Valley Reregulating	44 05	116 06	120	6.99	19.9	31.3	219,100

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
N.F. Payette R., Upper Lakes	45 02	116 03	650	1.10	3.31	12.1	84,700
Carbarton	44 15	116 04	182	3.25	13.1	18.6	130,200
Scriver Creek (Upper)	44 12	116 00	440	8.23	33.7	48.6	340,200
Scriver Creek (Lower)	44 09	115 59	753	16.3	40.3	65.3	457,000
Payette R., Horseshoe Bend	43 54	116 16	250	15.5	40.4	71.8	502,600
Montour Valley	43 55	116 20	53	3.29	8.57	15.2	106,400
Potential at undeveloped sites				124.70	306.52	532.13	3,725,000
Potential at developed sites (from developed waterpower summary)				6.52	21.40	37.25	258,700
Potential at developed and undeveloped sites (PAYETTE RIVER)				131.22	327.92	569.38	3,983,700
12-H Weiser River							
Weiser R., Tamarack to Fruitvale	44 48	116 26	1100	.09	1.07	4.0	28,000
Weiser R., Goodrich - B	44 37	116 36	170	.14	2.28	8.97	63,000
a Cambridge	44 33	116 41	90	.07	1.2	4.7	32,900
Concrete	44 22	116 48	270	.5	5.4	19.4	135,800
Bear Creek (Galloway)	44 16	116 45	90	.17	1.82	6.5	45,500
Potential at undeveloped sites				.97	11.77	43.57	305,200
Potential at developed sites (from developed waterpower summary)				.36	2.96	9.3	63,700
Potential at developed and undeveloped sites (WEISER RIVER)				1.33	14.73	52.87	368,900
a Cold Spring Ridge	44 30	116 18	1000	.85	1.70	4.68	32,800

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
OREGON							
12-H Burnt & Powder Rivers							
Burnt R., Dark Canyon	44 32	117 40	450	.11	3.44	4.59	32,100
Deer Creek	44 34	117 31	550	.14	4.44	6.08	42,600
Durkee	44 34	117 28	150	.06	1.34	1.91	13,400
Powder R., Mason	44 40	118 00	500	.26	1.28	3.83	26,800
Bowen	44 45	117 50	440	.37	2.06	5.98	41,900
N. Powder R., North Powder	44 56	118 01	1000	.26	1.70	4.68	32,800
Powder R., Salt Creek	44 55	117 40	340	.58	2.89	6.79	47,500
Big Timber Canyon	44 46	117 17	250	.53	2.76	6.38	44,700
Richland	44 45	117 12	223	.47	2.46	5.69	39,800
Eagle Cr., Lower Eagle Creek	44 53	117 15	400	2.89	4.08	12.2	85,400
New Bridge	44 48	117 12	520	3.76	5.30	15.9	111,300
Potential at undeveloped sites				9.43	31.75	74.13	518,300
Potential at developed sites (from developed waterpower summary)				.26	2.38	5.17	36,150
Potential at developed and undeveloped sites (BURNT & POWDER RIVERS)				9.69	34.13	79.30	554,450

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO AND OREGON							
12-H Snake River, Brownlee to High Mountain Sheep							
(I) Bear Cr. (Wildhorse) Bear Cr.Falls	44 56	116 41	880	.75	3.74	7.48	52,400
(I) Wildhorse R., Emry Creek	44 53	116 44	560	.48	2.62	5.24	36,700
(I) Wildhorse	44 53	116 44	995	1.27	5.92	12.7	88,900
(I) Indian Cr., Cuprum	45 04	116 46	1917	.81	2.44	4.89	34,200
(O) Pine Creek, Carson	44 55	117 09	800	.20	1.02	2.72	19,000
(O) Halfway	44 52	117 06	560	.38	1.9	5.47	38,300
(O) Wild Horse Rapids	44 52	116 52	835	1.42	6.39	19.5	136,500
(I-O) Snake R., Hells Canyon	45 14	116 40	173	132.3	214.6	264.6	1,852,200
(I) Deep Cr., Deep Creek	45 14	116 40	2717	1.15	3.46	6.93	48,500
(I) Granite Creek, Granite Creek	45 20	116 37	2890	1.23	3.68	7.37	51,600
(I) Sheep Creek, Old Timber	45 26	116 30	2290	.97	2.92	5.84	41,000
(O) Imnaha R., The Forks	45 06	117 07	600	.76	2.55	4.59	32,100
(O) Imnaha Falls	45 06	117 03	480	.82	2.65	4.69	32,800
(O) Coverdale	45 06	116 55	520	1.33	4.42	8.18	57,300
(O) Tunnel	45 06	116 45	2477	6.31	21.0	38.9	272,300
(O) Gumboot	45 11	116 52	400	.68	1.70	3.57	25,000
(O) Keener Gulch	45 15	116 49	400	1.02	2.89	5.95	41,700
(O) Grouse Cr.	45 19	116 48	360	1.68	4.44	8.26	57,800
(O) Grange	45 22	116 48	200	.68	2.21	4.25	29,800
(O) College Creek	45 26	116 35	240	1.02	2.75	5.20	36,400

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
(O) Dunlap Creek	45 29	116 48	180	.84	2.22	4.21	29,500
(O) Imnaha	45 34	116 30	440	2.62	5.05	11.6	81,200
(O) Log Creek	45 39	116 50	260	1.77	3.2	7.4	51,800
(O) Corral Creek	45 42	116 47	170	1.22	2.45	5.54	38,800
(I-O) Snake River, High Mountain Sheep	45 50	116 48	595	556.6	759.	936.1	6,553,000
Potential at undeveloped sites (Brownlee - High Mtn. Sheep)				718.31	1,065.22	1,391.18	9,738,800
IDAHO							
Potential at undeveloped sites				351.11	511.58	650.80	4,555,750
Potential at developed sites (from developed waterpower summary)				145.92	241.74	294.0	2,058,000
Potential at developed and undeveloped sites (BROWNLEE-HIGH MTN. SHEEP)				497.03	753.32	944.80	6,613,750
OREGON							
Potential at undeveloped sites				367.20	553.64	740.38	5,183,050
Potential at developed sites (from developed waterpower summary)				145.92	241.74	294.0	2,058,000
Potential at developed and undeveloped sites (BROWNLEE-HIGH MTN. SHEEP)				513.12	795.38	1,034.38	7,241,050

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
12-J Salmon River							
Salmon R., Stanley	44 14	114 53	347	5.61	9.74	21.2	148,400
Yankee Fork, Yankee Fork	44 28	114 34	600	.97	1.73	3.77	26,400
Bonanza	44 20	114 43	600	2.75	4.9	10.7	74,900
Salmon R., Robinson Bar	44 15	114 41	343	7.96	14.1	30.6	214,200
Clayton	44 15	114 24	360	9.58	16.8	36.7	256,900
E.Fk. Salmon R., Bowery	44 03	114 26	600	3.77	6.68	14.5	101,500
Spar Canyon	44 13	114 16	620	9.96	17.6	38.3	268,100
Salmon R., Bayhorse	44 24	114 15	325	10.1	17.8	38.7	270,900
Challis	44 27	114 13	100	4.25	6.80	12.40	86,800
Cronks Canyon	44 43	114 00	435	17.6	31.2	67.8	474,600
Salmon	45 01	113 55	460	19.5	34.6	75.3	527,100
Lemhi R., Lemhi	44 51	113 35	385	1.14	5.56	6.54	45,800
Tendoy	44 55	113 38	215	.64	3.29	3.84	26,900
Kenney	45 01	113 39	340	1.01	5.49	6.36	44,500
Salmon R., Salmon Valley	45 12	113 53	230	11.7	20.7	45.0	315,000
Shoup	45 22	114 16	563	32.5	57.4	124.3	870,100
Napias, Panther Crks, Leacock	45 08	114 12	980	4.17	7.08	15.4	107,800
* Panther Cr., Haynes-Stellite	45 09	114 16	264	1.81	3.20	6.94	48,600
Jureano	45 10	114 18	316	2.29	4.04	8.79	61,400
Deer Creek	45 13	114 18	460	3.71	6.61	14.3	100,000
Rood	45 16	114 20	300	2.55	4.49	9.77	68,400
Wallace	45 18	114 23	143	1.33	2.35	5.11	35,800
*Developed but not in operation			33				

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
M.Fk. Salmon R., Bear Valley	44 26	115 13	290	3.80	5.27	13.6	95,200
Chinook	44 31	115 15	335	4.39	6.10	15.7	109,900
Fuller Ranch	44 34	115 18	320	5.03	7.15	18.4	128,800
Sheepeater	44 43	115 08	580	9.12	12.9	33.3	233,100
Oreana	44 45	115 02	385	10.5	14.9	38.3	268,000
Bacon	44 46	114 52	400	12.4	17.7	45.6	319,200
Loon Cr., M.Fk., Falconberry	44 41	114 46	360	3.89	5.54	14.2	99,400
Franklin	44 48	114 48	525	5.89	8.34	21.4	149,800
Camas Cr., M.Fk., Meyers Cove	44 52	114 34	500	3.87	5.52	14.1	98,700
Yellowjacket	44 53	114 38	645	5.42	7.67	19.7	137,900
M.F. Salmon R., Aparejo	44 55	114 43	415	19.8	28.2	72.2	505,400
Big Creek, M.Fk., Cabin Creek	45 07	114 56	600	11.4	16.1	41.3	289,100
M.Fk. Salmon R., Porcupine	45 07	114 43	363	23.7	33.6	86.2	603,400
Salmon R., Pinnacle Falls	45 18	114 37	342	45.7	80.9	176.	1,232,000
Dillinger	45 32	115 06	445	75.6	133.8	291.	2,037,000
Hay Flat	45 32	115 14	105	18.1	31.9	69.6	487,200
S.Fk. Salmon R., Knox	44 42	115 42	270	.82	1.47	5.13	35,900
Poverty Flat	44 50	115 42	830	2.54	4.51	15.8	110,600
Reed	44 54	115 42	170	.98	1.74	6.13	42,900
Buckhorn	45 01	115 42	310	1.79	3.18	11.2	78,400
E.F., S.F., Salmon R., Stibnite	44 57	115 30	1340	2.28	3.99	9.68	67,800
Johnson Cr., E.F.,S.F., Halfway	44 51	115 30	400	.78	1.39	4.86	34,000
Yellow Pine	44 58	115 29	540	2.62	4.64	16.3	114,000
E.F., S.F. Salmon R.,Parks-Scott	45 06	115 37	1400	10.6	18.9	66.4	464,800
Secesh R., S.F., Secesh	45 12	115 49	260	.64	1.15	4.07	28,500
Whangdoodle	45 06	115 45	940	2.32	4.15	14.7	102,900
Butterfly - Scott	45 06	115 37	1440	5.51	9.79	34.3	240,000

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
S.F. Salmon R., Tailholt-Scott	45 06	115 37	360	7.44	13.2	46.5	325,500
Jeanott	45 08	115 35	175	3.95	7.09	24.9	174,300
Cumtux	45 17	115 28	640	14.6	26.1	91.7	641,900
Warren Cr., Salmon R., Warren Meadows	45 20	115 42	1000	2.12	4.25	7.65	53,600
Jordan Creek	45 22	115 37	1960	3.00	10.0	17.5	122,500
Romaine Ranch	45 23	115 36	1035	1.76	5.98	10.3	72,100
Salmon R., Crevice	45 24	116 03	600	124.4	220.3	479.4	3,355,800
Little Salmon R., Round Valley	45 07	116 16	400	2.75	4.83	10.5	73,500
Hazard	45 11	116 19	500	3.44	6.03	13.2	92,400
Lockwood	45 16	116 20	600	5.92	10.5	22.8	159,600
Sheep Creek	45 20	116 21	460	6.14	10.9	23.6	165,200
Captain John	45 24	115 19	295	4.25	7.50	16.3	114,100
Salmon R., Freedom - Riggins	45 36	116 16	270	63.7	112.7	245.	1,715,000
Lower Canyon	45 51	116 17	660	160.4	283.9	617.	4,320,000
Potential at undeveloped sites (SALMON RIVER)				848.26	1,475.94	3,381.84	23,673,500

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO-OREGON-WASHINGTON							
12-H China Gardens-Grande Ronde to Clarkston							
(I-O) Snake R., China Gardens	46 00	116 55	70	77.3	136.8	178.5	1,250,000
(O) Grande Ronde R., Starkey	45 12	118 23	580	.25	1.23	4.19	29,330
(O) Meadow Creek	45 15	118 22	190	.24	1.21	3.88	27,160
(O) Lower GR Reservoir	45 19	118 16	220	.30	1.78	5.05	35,350
(O) Perry	45 20	118 07	220	.30	1.78	5.05	35,400
(O) Indian Cr., Indian Creek	45 26	117 50	1100	.37	1.87	7.01	49,070
(O) Wallowa R., Aneroid Lake	45 13	117 12	1750	0	1.34	1.78	12,500
(O) Wade Gulch	45 27	117 23	160	1.16	2.65	8.02	56,100
(O) Lostine R., Cold Spring	45 20	117 25	1120	1.90	3.81	11.9	83,300
(O) Lostine	45 27	117 25	320	.82	1.90	5.71	40,000
(O) Bear Cr., Wallowa R.,Bear Creek	45 30	117 33	360	.15	2.45	3.46	24,200
(O) Wallowa R., Wallowa Res.	45 36	117 36	690	14.7	33.7	101.5	710,500
(O) Minam	45 37	117 39	90	1.91	4.40	13.2	92,400
(O) Minam R., North Minam	45 20	117 37	500	1.7	4.25	14.88	104,200
(O) Minam-Wallowa R., Horse Ranch	45 24	117 40	470	2.20	4.99	16.0	112,000
(O) Little Minam	45 37	117 39	670	3.99	8.54	27.3	191,100
(O) Grande Ronde R., Rondowa	45 45	117 46	420	11.8	64.3	75.5	528,500
(O) Mile 72	45 49	117 45	175	5.06	27.0	34.8	243,600
(O) Elbow Creek	45 52	117 40	107	3.10	3.41	23.9	167,300
(O) Mile 59	45 52	117 35	117	3.48	18.8	26.8	187,600
(O) Wildcat Cr.	45 54	117 29	141	4.25	22.9	32.7	228,900
(O) Troy	45 56	117 27	90	4.02	7.80	22.3	156,100

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
(O) Wenaha R., Fork	45 57	117 45	1000	.73	1.35	4.25	29,700
(O) Beaver	45 57	117 30	1460	1.61	3.10	8.69	60,800
(O-W) Grande Ronde R., Wenaha	46 02	117 16	520	27.2	52.6	150.	1,050,000
(W) Rays Ferry	46 01	117 10	134	7.46	14.5	39.6	277,200
(W) Horseshoe Bend	46 03	117 04	121	6.48	12.7	36.0	252,000
(W) Mile 7	46 04	117 02	100	5.39	10.5	29.9	209,000
(O) Joseph Cr., Chico	45 42	117 09	400	.10	1.19	2.38	16,700
(O) Viewpoint	45 49	117 14	600	.20	2.55	5.1	35,700
(O) Paradise	45 56	117 09	700	.24	3.27	6.55	45,900
(O) State Line	45 59	117 05	1000	.42	5.10	9.78	68,500
(I-W) Snake R., Asotin	46 17	116 59	160	176.8	312.8	408.	2,856,000
(W) Asotin Cr., Snake R., Charley Cr.	46 18	117 17	300	.38	1.02	1.40	9,800
(W) Palmer Gulch	46 09	117 13	300	.51	1.28	1.66	12,000
(W) George Cr.	46 08	117 07	400	.68	1.70	2.38	17,000
(W) Asotin Cr.	46 20	117 03	265	.50	1.24	1.69	12,000
(I-W) Snake R., Clarkston	46 25	117 02	40	44.2	78.2	102.	714,000
Potential at undeveloped sites (CHINA GARDENS-GRANDE RONDE TO CLARKSTON)				411.90	860.01	1,432.80	10,030,910
Potential at developed sites (from developed waterpower summary)				1.56	2.51	3.24	24,600
Potential at developed and undeveloped sites				413.46	862.52	1,436.04	10,055,510

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
Potential at undeveloped sites (CHINA GARDENS-GRANDE RONDE TO CLARKSTON) (Includes 1/2 of China Gardens, Asotin, Clarkston)				149.15	263.90	344.25	2,410,000
OREGON							
Potential at developed sites (from developed waterpower summary)				1.56	2.51	3.24	24,600
Potential at undeveloped sites (Includes 1/2 of China Gardens & Wenaha)				117.25	331.37	645.92	4,521,910
Potential at developed and undeveloped sites (CHINA GARDENS-GRANDE RONDE TO CLARKSTON)				118.81	333.88	649.16	4,546,510
WASHINGTON							
Potential at undeveloped sites (CHINA GARDENS-GRANDE RONDE TO CLARKSTON) (Includes 1/2 of Wenaha, Asotin, Clarkston)				145.5	264.74	442.63	3,099,000

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
IDAHO							
12-K Clearwater River							
Selway R., Magruder	45 44	114 45	950	3.23	8.08	24.2	169,400
White Cap	45 52	114 45	1000	8.5	23.0	65.5	458,500
Running Creek	45 56	114 48	300	3.83	11.0	31.1	217,700
Pettibone	46 02	114 50	300	4.34	12.0	34.0	238,000
Bear Cr. (Selway) Two Buttes	46 02	114 45	1100	1.87	5.61	15.0	105,000
Bear Creek	46 02	114 50	1350	5.16	13.8	40.2	281,400
E.F. Moose Cr.(Selway) Double Cr.	46 10	114 52	850	1.81	5.42	15.2	106,400
N.F. Moose Cr., Bailey Mountain	46 10	114 52	1550	2.63	15.8	54.0	378,000
Selway R., Moose Creek	46 07	114 57	300	7.65	21.4	29.3	205,100
Meadow Cr. (Selway)Upper Meadow Cr	45 50	115 15	900	1.91	5.35	13.8	96,600
Lower Meadow Creek	46 01	115 16	1045	4.00	11.1	32.0	224,000
Selway R., Pinchot	46 04	115 13	295	8.25	23.2	66.2	463,400
Crooked Fork Cr.,(Lochsa) Lolo Pass	46 35	114 36	1000	2.12	6.8	17.0	119,000
White Sand Cr.(Lochsa) Hidden Lk.	46 28	114 34	1000	3.4	11.1	28.1	196,700
Lochsa R., Powell	46 30	114 39	560	5.71	16.2	42.8	299,600
Squaw Creek	46 28	114 47	340	3.76	11.6	29.5	206,500
Warm Springs Cr.(Lochsa)Wind Lks	46 28	114 47	1500	1.91	6.37	16.6	116,200
Lochsa R., Lost Creek	46 28	114 58	200	3.06	9.18	24.6	172,200
Lake Cr. (Lochsa)Freezeout Mtn.	46 27	115 00	1100	1.40	4.67	11.2	78,400
Lochsa R., Weir Creek	46 25	115 08	200	3.57	10.7	29.6	207,200
Five Islands	46 21	115 18	600	11.2	34.2	90.3	632,100
Bright Angel	46 17	115 23	245	5.82	17.9	48.0	336,000
M.F. Clearwater, Penny Cliffs	46 09	115 54	595	43.5	127.	354.2	2,479,400
S.F. Clearwater, Red Horse	45 47	115 23	300	.38	1.27	3.57	25,000

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
S.F. Clearwater R., Elk City	45 50	115 35	580	1.97	5.67	16.8	117,600
Tenmile Creek	45 48	115 46	420	2.14	6.07	17.5	122,500
Twentymile Creek	45 50	115 53	600	3.31	9.18	27.0	189,000
Johns Cr. (S.F.) Marble Point	45 50	115 53	1000	.85	2.55	7.23	50,600
S.F. Clearwater R.	45 54	116 01	520	3.98	10.8	31.8	222,600
S.F. Dam & Diversion	46 02	115 58	560	4.52	12.6	37.1	259,700
Clearwater R., Kooskia	46 20	116 08	174	18.3	54.3	146.4	1,024,800
Lolo Cr.(Clearwater) Eldorado	46 22	116 08	1900	5.65	16.1	46.8	327,600
Clearwater R., Orofino	46 28	116 15	86	9.79	27.8	70.9	496,300
Ahsahka	46 30	116 18	26	3.09	8.62	22.1	154,700
N.F. Clearwater,Elizabeth Mtn.	46 50	115 07	300	1.53	4.59	9.69	67,800
Kelly Cr.(N.F.) Kellys Thumb	46 45	115 05	500	5.31	16.1	33.6	235,200
N.F. Clearwater R., Kelly Fork	46 43	115 11	300	5.86	17.8	37.0	259,000
Weitas Creek	46 38	115 26	490	16.2	47.1	97.9	685,300
Orogrande Cr.(N.F.) Orogrande	46 37	115 30	690	1.19	4.10	8.79	61,500
N.F. Clearwater R., Rock Creek	46 49	115 29	460	17.2	48.9	103.2	722,400
Skull & Quartz Crks. Bald Knob	46 49	115 28	550	2.10	6.07	12.6	88,200
N.F. Clearwater R.,Smiths Cabin	46 52	115 45	310	14.7	41.3	86.8	607,600
Little N.F., Buzzards Roost	47 00	115 39	400	1.7	5.44	10.9	76,300
Gateway	46 55	115 38	500	2.97	8.92	17.8	124,600
Boehls Butte	46 53	115 52	660	5.05	15.7	31.4	219,800
N.F. Clearwater, Bruces Eddy	46 31	116 18	566	45.7	130.	273.	1,911,000

UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
Clearwater R., Big George	46 30	116 31	84	12.4	40.9	94.8	663,600
Arrow	46 28	116 45	90	13.6	45.3	104.	728,000
Hog Island	46 26	116 53	34	5.92	19.2	43.7	305,900
Potential at undeveloped sites				344.04	1,017.86	2,434.78	17,532,500
Potential at developed sites (from developed waterpower summary)				6.98	22.62	52.53	367,700
Potential at developed and undeveloped sites (CLEARWATER RIVER)				351.02	1,040.48	2,547.31	17,900,200

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UNDEVELOPED WATERPOWER SITES

STATE Basin index number and basin Stream Site	Powerhouse location Latitude ° '	 Longitude ° '	Gross Head (feet)	Gross theoretical power, with gross head, 100 percent efficiency, and flows at Q 95 MW	 Q 50 MW	 Mean MW	Estimated average annual generation MWH
WASHINGTON							
12-L Snake River, Washington							
Snake R., Lower Granite	46 36	117 21	82	122.	223.	376.	2,632,000
Little Goose	46 35	118 00	100	148.7	272.	459.	3,213,000
Tucannon R., Little Tucannon	46 14	117 42	500	.85	1.28	2.55	17,850
Russell	46 21	117 41	730	1.55	2.79	4.34	30,400
Marengo	46 26	117 45	600	2.04	3.32	5.61	39,270
Willow Creek	46 29	117 56	470	2.0	3.4	5.19	36,300
Pataha	46 31	118 02	210	.89	1.79	2.50	17,500
Tucannon	46 33	118 10	257	.76	2.19	3.50	24,500
Palouse R., Palouse Falls	46 40	118 12	467	2.38	8.73	25.0	175,000
Potential at undeveloped sites				281.17	518.50	883.69	6,185,820
Potential at developed sites (from developed waterpower summary)				288.6	574.0	897.9	6,285,600
Potential at developed and undeveloped sites (SNAKE RIVER-WASHINGTON) (BELOW CLEARWATER RIVER)				569.77	1,092.50	1,781.59	12,471,420

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